

AMENDMENTS TO THE CLAIMS

Claims 1-100. (Canceled)

Claim 101. (Currently Amended) A method for reproducing digital data from a signal record medium, comprising the steps of:

reading out recording control information from a playback mode control signal area of said signal record medium, said recording control information being operable to control the playback mode of said record medium;

connecting an additional burst signal to a front side of a standard color burst signal to generate an extended color burst signal; and

changing, based on said recording control information, the phase of said additional burst signal and a front portion of a said standard color burst signal associated with an analog color video signal generated from said digital data such that the extended color burst signal is modified to include a portion having a changed phase and a portion having an unchanged phase.

Claim 102. (Currently Amended) The method according to claim 101, wherein a first half of said standard color burst signal is changed and a second half of said standard color burst signal is unchanged.

Claim 103. (Currently Amended) The method according to claim 101, wherein a first half of said standard color burst signal is reversed in phase relative to a second half of said standard color burst signal.

Claim 104. (Currently Amended) The method according to claim 101, wherein said extended color burst signal has eleven cycles and at least two cycles of said eleven cycles are changed in phase.

Claim 105. (Currently Amended) The method according to claim 101, wherein said extended color burst signal has eleven cycles and about 5.5 cycles of said eleven cycles are changed in phase.

Claim 106. (Currently Amended) The method according to claim 101, wherein at least 5.5 cycles of said extended color burst signal are changed in phase.

Claim 107. (Currently Amended) The method according to claim 101, wherein said step of changing includes adding at least two cycles to said extended color burst signal.

Claim 108. (Currently Amended) The method according to claim 101, wherein said extended color burst signal has a first portion and a second portion and a phase switching point exists between said first portion and said second portion.

Claim 109. (Currently Amended) The method according to claim 101, wherein for every seventeen horizontal lines of said video signal the extended color burst signal associated with two lines of said seventeen lines is changed in phase.

Claim 110. (Currently Amended) The method according to claim 101, wherein for every twenty one horizontal lines of said video signal the extended color burst signal associated with four lines of said twenty one lines is changed in phase.

Claim 111. (Currently Amended) An apparatus for reproducing digital data from a signal recording medium, comprising:

means for reading out recording control information from a playback mode control signal area of said signal recording medium, said recording control information being operable to control the playback mode of said record medium;

means for connecting an additional burst signal to a front side of a standard color burst signal to generate an extended color burst signal; and

means for changing, based on said recording control information, the phase of said additional burst signal and a front portion of said standard a-color burst signal associated with an analog color video signal generated from said digital data such that the extended color burst signal is modified to include a portion having a changed phase and a portion having an unchanged phase.

Claim 112. (Currently Amended) The apparatus according to claim 111, wherein a first half of said standard color burst signal is changed and a second half of said standard color burst signal is unchanged.

Claim 113. (Currently Amended) The apparatus according to claim 111, wherein a first half of said standard color burst signal is reversed in phase relative to a second half of said standard color burst signal.

Claim 114. (Currently Amended) The apparatus according to claim 111, wherein said extended color burst signal has eleven cycles and at least two cycles of said eleven cycles are changed in phase.

Claim 115. (Currently Amended) The apparatus according to claim 111, wherein said extended color burst signal has eleven cycles and about 5.5 cycles of said eleven cycles are changed in phase.

Claim 116. (Currently Amended) The apparatus according to claim 111, wherein at least 5.5 cycles of said extended color burst signal are changed in phase.

Claim 117. (Currently Amended) The apparatus according to claim 111, wherein said step of changing includes adding at least two cycles to said extended color burst signal.

Claim 118. (Currently Amended) The apparatus according to claim 111, wherein said extended color burst signal has a first portion and a second portion and a phase switching point exists between said first portion and said second portion.

Claim 119. (Currently Amended) The apparatus according to claim 111, wherein for every seventeen horizontal lines of said video signal the extended color burst signal associated with two lines of said seventeen lines is changed in phase.

Claim 120. (Currently Amended) The apparatus according to claim 111, wherein for every twenty one horizontal lines of said video signal the extended color burst signal associated with four lines of said twenty one lines is changed in phase.

Claim 121. (Currently Amended) A method for reproducing a ciphered signal from a signal record medium, comprising the steps of:

reading out recording control information arrayed at a playback mode control signal area of said signal record medium;

deciphering said ciphered signal using at least a portion of said recording control information as key information for reproducing said signal to generate an analog color video signal;

connecting an additional burst signal to a front side of a standard color burst signal to generate an extended color burst signal; and

changing the phase of said additional burst signal and a front portion of said standard a color burst signal associated with said deciphered signal using at least a portion of said recording control information as key information such that the extended color burst signal is modified to include a portion having a changed phase and a portion having an unchanged phase.

Claim 122. (Currently Amended) The method according to claim 121, wherein a first half of said standard color burst signal is changed and a second half of said standard color burst signal is unchanged.

Claim 123. (Currently Amended) The method according to claim 121, wherein a first half of said standard color burst signal is reversed in phase relative to a second half of said standard color burst signal.

Claim 124. (Currently Amended) The method according to claim 121, wherein said extended color burst signal has eleven cycles and at least two cycles of said eleven cycles are changed in phase.

Claim 125. (Currently Amended) The method according to claim 121, wherein said extended color burst signal has eleven cycles and about 5.5 cycles of said eleven cycles are changed in phase.

Claim 126. (Currently Amended) The method according to claim 121, wherein at least 5.5 cycles of said extended color burst signal are changed in phase.

Claim 127. (Currently Amended) The method according to claim 121, wherein said step of changing includes adding at least two cycles to said extended color burst signal.

Claim 128. (Currently Amended) The method according to claim 121, wherein said extended color burst signal has a first portion and a second portion and a phase switching point exists between said first portion and said second portion.

Claim 129. (Currently Amended) The method according to claim 121, wherein for every seventeen horizontal lines of said video signal the extended color burst signal associated with two lines of said seventeen lines is changed in phase.

Claim 130. (Currently Amended) The method according to claim 121, wherein for every twenty one horizontal lines of said video signal the extended color burst signal associated with four lines of said twenty one lines is changed in phase.

Claim 131. (Currently Amended) A signal reproducing apparatus for reproducing a ciphered signal from a signal record medium comprising:

readout means for reading out recording control information arrayed at a playback mode control signal area of said signal record medium, said recording control information being operable to control the playback mode of said record medium;

deciphering means for deciphering said ciphered signal using at least a portion of said recording control information as key information to generate an analog color video signal;

connecting means for connecting an additional burst signal to a front side of a standard color burst signal to generate an extended color burst signal; and

changing means for changing the phase of said additional burst signal and a front portion of said standard a-color burst signal associated with said deciphered signal using at least a portion of said recording control information as key information such that the extended color burst signal is modified to include a portion having a changed phase and a portion having an unchanged phase.

Claim 132. (Currently Amended) The apparatus according to claim 131, wherein a first half of said standard color burst signal is changed and a second half of said standard color burst signal is unchanged.

Claim 133. (Currently Amended) The apparatus according to claim 131, wherein a first half of said standard color burst signal is reversed in phase relative to a second half of said standard color burst signal.

Claim 134. (Currently Amended) The apparatus according to claim 131, wherein said extended color burst signal has eleven cycles and at least two cycles of said eleven cycles are changed in phase.

Claim 135. (Currently Amended) The apparatus according to claim 131, wherein said extended color burst signal has eleven cycles and about 5.5 cycles of said eleven cycles are changed in phase.

Claim 136. (Currently Amended) The apparatus according to claim 131, wherein at least 5.5 cycles of said extended color burst signal are changed in phase.

Claim 137. (Currently Amended) The apparatus according to claim 131, wherein said step of changing includes adding at least two cycles to said extended color burst signal.

Claim 138. (Currently Amended) The apparatus according to claim 131, wherein said extended color burst signal has a first portion and a second portion and a phase switching point exists between said first portion and said second portion.

Claim 139. (Currently Amended) The apparatus according to claim 131, wherein for every seventeen horizontal lines of said video signal the extended color burst signal associated with two lines of said seventeen lines is changed in phase.

Claim 140. (Currently Amended) The apparatus according to claim 131, wherein for every twenty one horizontal lines of said video signal the extended color burst signal associated with four lines of said twenty one lines is changed in phase.

Claims 141-142. (Canceled)

Claim 143. (Currently Amended) A method for receiving and reproducing transmitted digital data, comprising the steps of:

generating transmission control information from the received digital data;

connecting an additional burst signal to a front side of a standard color burst signal to generate an extended color burst signal;

changing, based on said transmission control information, the phase of said additional burst signal and a front portion of said standard a-color burst signal associated with an analog color video signal generated from said digital data such that the extended color burst signal is modified to include a portion having a changed phase and a portion having an unchanged phase; and

performing a pre-set conversion on said digital data based on said transmission control information.

Claim 144. (Currently Amended) The method according to claim 143, wherein a first half of said standard color burst signal is changed and a second half of said standard color burst signal is unchanged.

Claim 145. (Currently Amended) The method according to claim 143, wherein a first half of said standard color burst signal is reversed in phase relative to a second half of said standard color burst signal.

Claim 146. (Currently Amended) The method according to claim 143, wherein said extended color burst signal has eleven cycles and at least two cycles of said eleven cycles are changed in phase.

Claim 147. (Currently Amended) The method according to claim 143, wherein said extended color burst signal has eleven cycles and about 5.5 cycles of said eleven cycles are changed in phase.

Claim 148. (Currently Amended) The method according to claim 143, wherein at least 5.5 cycles of said extended color burst signal are changed in phase.

Claim 149. (Currently Amended) The method according to claim 143, wherein said step of changing includes adding at least two cycles to said extended color burst signal.

Claim 150. (Currently Amended) The method according to claim 143, wherein said extended color burst signal has a first portion and a second portion and a phase switching point exists between said first portion and said second portion.

Claim 151. (Currently Amended) The method according to claim 143, wherein for every seventeen horizontal lines of said video signal the extended color burst signal associated with two lines of said seventeen lines is changed in phase.

Claim 152. (Currently Amended) The method according to claim 143, wherein for every twenty one horizontal lines of said video signal the extended color burst signal associated with four lines of said twenty one lines is changed in phase.

Claim 153. (Currently Amended) An apparatus for receiving and reproducing transmitted digital data, comprising:

means for generating transmission control information from the received digital data;

means for connecting an additional burst signal to a front side of a standard color burst signal to generate an extended color burst signal;

means for changing, based on said transmission control information, the phase of said additional burst signal and a front portion of said standard a-color burst signal associated with an analog color video signal generated from said digital data such that the extended color burst signal is modified to include a portion having a changed phase and a portion having an unchanged phase; and

means for performing a pre-set conversion on said digital data.

Claim 154. (Currently Amended) The apparatus according to claim 153, wherein a first half of said standard color burst signal is changed and a second half of said standard color burst signal is unchanged.

Claim 155. (Currently Amended) The apparatus according to claim 153, wherein a first half of said standard color burst signal is reversed in phase relative to a second half of said standard color burst signal.

Claim 156. (Currently Amended) The apparatus according to claim 153, wherein said extended color burst signal has eleven cycles and at least two cycles of said eleven cycles are changed in phase.

Claim 157. (Currently Amended) The apparatus according to claim 153, wherein said extended color burst signal has eleven cycles and about 5.5 cycles of said eleven cycles are changed in phase.

Claim 158. (Currently Amended) The apparatus according to claim 153, wherein at least 5.5 cycles of said extended color burst signal are changed in phase.

Claim 159. (Currently Amended) The apparatus according to claim 153, wherein said step of changing includes adding at least two cycles to said extended color burst signal.

Claim 160. (Currently Amended) The apparatus according to claim 153, wherein said extended color burst signal has a first portion and a second portion and a phase switching point exists between said first portion and said second portion.

Claim 161. (Currently Amended) The apparatus according to claim 153, wherein for every seventeen horizontal lines of said video signal the extended color burst signal associated with two lines of said seventeen lines is changed in phase.

Claim 162. (Currently Amended) The apparatus according to claim 153, wherein for every twenty one horizontal lines of said video signal the extended color burst signal associated with four lines of said twenty one lines is changed in phase.

Claim 163. (Currently Amended) A method for receiving a transmitted ciphered signal and reproducing the received signal, comprising the steps of:

generating transmission control information from said received signal;

deciphering said received signal using at least a portion of said transmission control information as key information to generate an analog color video signal;

connecting an additional burst signal to a front side of a standard color burst signal to generate an extended color burst signal; and

changing the phase of said additional burst signal and a front portion of said standard a-color burst signal associated with said color video signal using at least a portion of said transmission control information as key information such that the extended color burst signal is modified to include a portion having a changed phase and a portion having an unchanged phase.

Claim 164. (Currently Amended) The method according to claim 163, wherein a first half of said standard color burst signal is changed and a second half of said standard color burst signal is unchanged.

Claim 165. (Currently Amended) The method according to claim 163, wherein a first half of said standard color burst signal is reversed in phase relative to a second half of said standard color burst signal.

Claim 166. (Currently Amended) The method according to claim 163, wherein said extended color burst signal has eleven cycles and at least two cycles of said eleven cycles are changed in phase.

Claim 167. (Currently Amended) The method according to claim 163, wherein said extended color burst signal has eleven cycles and about 5.5 cycles of said eleven cycles are changed in phase.

Claim 168. (Currently Amended) The method according to claim 163, wherein at least 5.5 cycles of said extended color burst signal are changed in phase.

Claim 169. (Currently Amended) The method according to claim 163, wherein said step of changing includes adding at least two cycles to said extended color burst signal.

Claim 170. (Currently Amended) The method according to claim 163, wherein said extended color burst signal has a first portion and a second portion and a phase switching point exists between said first portion and said second portion.

Claim 171. (Currently Amended) The method according to claim 163, wherein for every seventeen horizontal lines of said video signal the extended color burst signal associated with two lines of said seventeen lines is changed in phase.

Claim 172. (Currently Amended) The method according to claim 163, wherein for every twenty one horizontal lines of said video signal the extended color burst signal associated with four lines of said twenty one lines is changed in phase.

Claim 173. (Currently Amended) An apparatus for receiving and reproducing a transmitted ciphered signal, comprising:

means for recovering transmission control information which has been transmitted together with said ciphered signal;

means for deciphering said ciphered signal using at least a portion of said transmission control information as key information to generate an analog color video signal;

means for connecting an additional burst signal to a front side of a standard color burst signal to generate an extended color burst signal; and

means for changing the phase of said additional burst signal and a front portion of said standard a-color burst signal associated with said color video signal using at least a portion of said transmission control information as key information such that the extended color burst signal is modified to include a portion having a changed phase and a portion having an unchanged phase.

Claim 174. (Currently Amended) The apparatus according to claim 173, wherein a first half of said standard color burst signal is changed and a second half of said standard color burst signal is unchanged.

Claim 175. (Currently Amended) The apparatus according to claim 173, wherein a first half of said standard color burst signal is reversed in phase relative to a second half of said standard color burst signal.

Claim 176. (Currently Amended) The apparatus according to claim 173, wherein said extended color burst signal has eleven cycles and at least two cycles of said eleven cycles are changed in phase.

Claim 177. (Currently Amended) The apparatus according to claim 173, wherein said extended color burst signal has eleven cycles and about 5.5 cycles of said eleven cycles are changed in phase.

Claim 178. (Currently Amended) The apparatus according to claim 173, wherein at least 5.5 cycles of said extended color burst signal are changed in phase.

Claim 179. (Currently Amended) The apparatus according to claim 173, wherein said step of changing includes adding at least two cycles to said extended color burst signal.

Claim 180. (Currently Amended) The apparatus according to claim 173, wherein said extended color burst signal has a first portion and a second portion and a phase switching point exists between said first portion and said second portion.

Claim 181. (Currently Amended) The apparatus according to claim 173, wherein for every seventeen horizontal lines of said video signal the extended color burst signal associated with two lines of said seventeen lines is changed in phase.

Claim 182. (Currently Amended) The apparatus according to claim 173, wherein for every twenty one horizontal lines of said video signal the extended color burst signal associated with four lines of said twenty one lines is changed in phase.

Claim 183. (Currently Amended) A video signal reproducing apparatus for reproducing a digital disc medium having recorded thereon a digital video signal and a recording control code for outputting at least an analog video signal, wherein said recording control code is arrayed in a playback mode control signal area of said disc, comprising:

detection means for detecting the state of the recording control code;

means for generating a recording scrambling signal;

D/A conversion means for converting the digital video signal reproduced from the digital disc medium into an analog video signal;

means for connecting an additional burst signal to a front side of a standard color burst signal to generate an extended color burst signal;

annexing means for annexing said recording scrambling signal in a pre-set area of a vertical blanking period of the D/A converted analog video signal by changing the phase of said additional burst signal and a front portion of said standard a-color burst signal associated with said analog video signal such that the extended color burst signal is modified to include a portion having a changed phase and a portion having an unchanged phase; and

outputting means for outputting said analog video signal.

Claim 184. (Currently Amended) The apparatus according to claim 183, wherein a first half of said standard color burst signal is changed and a second half of said standard color burst signal is unchanged.

Claim 185. (Currently Amended) The apparatus according to claim 183, wherein a first half of said standard color burst signal is reversed in phase relative to a second half of said standard color burst signal.

Claim 186. (Currently Amended) The apparatus according to claim 183, wherein said extended color burst signal has eleven cycles and at least two cycles of said eleven cycles are changed in phase.

Claim 187. (Currently Amended) The apparatus according to claim 183, wherein said extended color burst signal has eleven cycles and about 5.5 cycles of said eleven cycles are changed in phase.

Claim 188. (Currently Amended) The apparatus according to claim 183, wherein at least 5.5 cycles of said extended color burst signal are changed in phase.

Claim 189. (Currently Amended) The apparatus according to claim 183, wherein said step of changing includes adding at least two cycles to said extended color burst signal.

Claim 190. (Currently Amended) The apparatus according to claim 183, wherein said extended color burst signal has a first portion and a second portion and a phase switching point exists between said first portion and said second portion.

Claim 191. (Currently Amended) The apparatus according to claim 183, wherein for every seventeen horizontal lines of said video signal the extended color burst signal associated with two lines of said seventeen lines is changed in phase.

Claim 192. (Currently Amended) The apparatus according to claim 183, wherein for every twenty one horizontal lines of said video signal the extended color burst signal associated with four lines of said twenty one lines is changed in phase.